National Institute of Environmental Health Sciences

Dialysis and the environment: Comparing home and unit based haemodialysis

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Year: 2007
Journal: Journal of Renal Care. 33 (3): 119-123

Abstract:

Dialysis, with its high dependence upon technology, disposable products and transport requirements, presents an unusual perspective for environmental management. This study considers and compares the environmental aspects arising from the provision of haemodialysis (HD) in the hospital and home setting. Resource items were measured at two levels of aggregation--unit and individual patient. Unit level items applied to common resources used for HD and require apportioning appropriately with patient level items that could be attributable to individuals. The data was measured in standard units such as hours and number of treatments or apportioned appropriately. With equivalent emissions calculated as CO2 annually per patient for standard HD. The findings indicate that HD in the home offers a net reduction in CO2 emissions per patient annually compared to hospital based HD, and provides an overview of how healthcare provision and the use of resources can be measured, enabling refinement in environmental management plans.

Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Unspecified Exposure

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

resource focuses on specific location

Non-United States

Non-United States: Europe

European Region/Country: European Country

Other European Country : United Kingdom

Health Impact:

specification of health effect or disease related to climate change exposure

Health Outcome Unspecified

Medical Community Engagement:

resource focus on how the medical community discusses or acts to address health impacts of climate change

A focus of content

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Mitigation

Resource Type:

format or standard characteristic of resource

Research Article

Timescale:

time period studied

Time Scale Unspecified